










Stainless Steel Open Head 15-Gallon Drum Specification

Press  to see Check List only.

Description	Package ID Number	Packaging Filling Instructions *
Drum, Stainless steel, open head, 15 gallon, 15 1/4 in. ID UN 1A2/X 125/S ; UN 1A2/X 1.4/250 , 0.9119 mm Nominal (20 gauge)	112-6217	CHK-17

Mfg. Details Per: **Packaging Specifications**
No. 1A2-102-00
Issue Date: February 1, 2000
Revised Date:

	1.0 GENERAL DESCRIPTION
	2.0 MATERIAL DETAILS
	3.0 CONTAINER PERFORMANCE CRITERIA
	4.0 QUALITY ASSURANCE
	5.0 MARKING
	6.0 INTENDED USE
	7.0 SUGGESTED MANUFACTURERS
	8.0 AUTHORIZED CHANGES
	9.0 DISTRIBUTION OF UN PERFORMANCE TEST REPORTS (per ¶ 3.1)

* For future use.

Company
Name
Here

Packaging Specifications

Open Head Stainless Drum

Specification No. 1A2-102-00

Issued: February 1, 2000

Revised:

Page 1 of 7

1.0 GENERAL DESCRIPTION

Open Head (OH) Stainless Steel drum with welded seams, 2 or 3 rolling hoops, steel body, steel head, conventional (with seams) construction. Steel gauge and specific variations as specified in the [Appendix A-2](#) for 55, 30, 15 or 16 gallon drums.

1.1 United Nations Designation - UN 1A2 /X **/ S/ * [UN 1A2 /X sg/tp/ *]^{dm} [per 49 CFR, §178.503]

- dm** = Drum dual marked for liquids, as well as solid material.
- 1A2** = Open head steel drum.
- X** = Suitable for Packing Group I, II, and III materials.
- **** = Maximum allowable gross weight in kilograms for which the drum was tested .
- S** = Designation indicates packaging is for solid materials [or combination packaging].
- *** = The last two (2) digits of the calendar year in which the container was manufactured.
- sg** = Specific gravity of material for which drum design type was tested.
- tp** = Hydrostatic test pressure (in kilopascals) for which drum design type was tested.

Specific UN markings are specified in the Purchase Order Description for the referenced package ID number for each specific drum, which are the Company "minimum" UN requirements.

1.2 Size:

Inside Diameter (in inches) [as specified in the Purchase Order Description for the referenced package ID number].

Drum dimensions to be in accordance with ANSI MH2-1997 (American National Standards Institute) Standards for Steel Drums and Pails for 16-, 30-, and 55-gallon drums

2.0 MATERIAL DETAILS

Drum construction must comply with Title 49, Code of Federal Regulations (49 CFR), §178.504 (latest edition) for steel drums, and the following minimum requirements. Manufacturer shall document appropriate quality control on incoming raw material. No significant changes to the manufacturing process or raw material is allowed without prior approval of the Company. Steel thickness dimensions/tolerances in conformance with APPENDIX TABLE, per [Appendix A-2](#).

2.1 Drum Body:

Stainless steel, Type 304-2B, A-240, or equivalent. Top of body rolled to form ½ inch false wire-see [Appendix A-2](#) for steel size for stated drum capacity.

2.2 Drum Head:

Stainless steel, Type 304-2B, A-240, or equivalent; see [Appendix A-2](#) for steel size.

2.3 Drum Bottom:

Stainless steel, Type 304-2B, A-240, or equivalent; same steel as drum body.

Open Head Stainless Drum

Specification No. 1A2-102-00

Issued: February 1, 2000

Revised:

Page 2 of 7

2.4 Body Seams:

Welded (on-line, continuous welder).

2.5 Chimes:

Mechanically seamed; bottom chime triple or double seamed to meet UN tests.

2.6 Rolling Hoops:

Three (3) each separate rolling hoops formed into the drum body, with one not more than three (3) inches from top drum curl for 55 gallon capacity and larger. Two (2) rolling hoops for under 55 gallon capacity--see [Appendix A-2](#). Rolling hoops to be in accordance with ANSI MH2-1997 Standards.

2.7 Cover/Bung:

For the 55 gallon drum, a 3/4 inch Tri-Sure bung fitting (stainless) is required in the drum head (cover).

2.8 Gasket:

Closed-cell rubber, glued into lid--gasket material and size as necessary to meet UN performance tests. Gasket to have an operating range of -40°F to +158°F. Must be EPDM or approved equivalent.

2.9 Closure:

Twelve (12) gauge bolt type SS locking ring, welded lugs, one lug threaded, and stainless steel bolt. See [Appendix A-2](#) for minimum required bolt sizes.

Manufacturer/supplier must furnish Company, in writing, closure requirements, as performed for the UN design test; per 49 CFR, §178.2(c)(1). It must be identified on the closure instructions specifically as to the Company drum to which the instructions apply. Ref: §9.0 for distribution.

2.10 Surface:

Stainless steel to be standard mill, 2B, finish, and surfaces shall be free from oil/grease, etc.

2.11 Interior finish:

None; interior surface to be free from oil/grease, etc.

2.12 Exterior finish:

Standard 304-2B

2.13 Seaming Compound:

Bottom chime must be sealed with a seaming compound, and applied in conformance to standard manufacturing quality procedures, to ensure no leakage/seepage.

2.14 Cleanliness:

Finished drums must be free of rust, dirt, oil, solvents, metal shavings, foreign contaminants, and interior moisture.

3.0 CONTAINER PERFORMANCE CRITERIA

Manufacturer shall successfully test and certify that containers meet or exceed the requirements of 49 CFR, §178.600 - 178.608, for the Packing Group I level.

3.1 Performance Test Documentation:

Upon request, the manufacturer must be capable of providing copies of the performance test documentation for purchased packagings, as required by 49 CFR, §178.601(1) for the UN certification marked packaging. Periodic audit copies will be requested randomly on purchased UN packagings. Ref: §9.0.

Open Head Stainless Drum

Specification No. 1A2-102-00

Issued: February 1, 2000

Revised:

Page 3 of 7

3.2 Performance Tests:

The specified drums require the **US Department of Transportation** UN performance criteria for design qualification testing, periodic retesting, and production tests established in 49 CFR, ¶178.600 - 178.608:

NOTE TO SELLER: The UN test/marketing certifications must be made by the drum manufacturer or a Department of Transportation approved third-party tester.

4.0 QUALITY ASSURANCE

The Seller shall assure, and be responsible, that the quality of the drums furnished under this document are of good quality, as pursuant to industry standard manufacturing practices for steel drums, including the materials/components used in the manufacturing of the stated steel drums.

The Seller shall meet the requirements stipulated in this document and the specific requirements of the Purchase Order Description for the specific drum as specified in the Purchase Order.

4.1 Manufacturer's Certification:

By the act of placing the UN performance criteria markings on each drum purchased, the manufacturer acknowledges he has certified, and accepted responsibility, that the stated drum design meets or exceeds the U.S. Department of Transportation's UN performance requirements as stipulated in ¶3.2 of this document and in accordance with the markings prescribed in 49 CFR, ¶178.503.

In addition, this certification marking acknowledges that the drum manufacturer has complied with the specific standards for steel drums specifically listed in 49 CFR, ¶178.504.

4.2 Receiver Inspections:

The following inspections will be performed on the incoming drums by a Company designee to determine the drums meet quality standards and the requirements of this document. However, the Company is not limited to the following inspections to determine quality and specification conformance. Conformance will be indicated by a Y or N in the "Y/N" column, and negative responses documented and processed through the Company's Quality Assurance Program.

NOTE: Checklist for this specification is on following page.

Open Head Stainless Drum

Specification No. 1A2-102-00

Issued: February 1, 2000

Revised:

Page 4 of 7

This checklist is to be reproduced for QC Inspections

Receiver Inspection Quality Control (QC) Checklist for Incoming Stainless Steel Drums

QC Conformance		Y/N	<< "No's" to be documented in accordance with the Company's QA Program
1	Steel gauge size (Appendix A-2)		Meets dimensions/tolerances per attached GAUGE TABLE, Appendix A-2 .
2	Capacity (¶1.0)		Drum is the capacity specified in the Purchase Order Description.
3	Drum Surface (¶2.10)		Clean, no significant scratching, dings or dents in drum, no significant corrosion, on exterior surface of drum.
4	Locking rings (¶2.9) and chimes (¶2.5)		Bolted locking rings are stainless steel, contain 5/8 in. SS bolt for 55 gallon; 3/8 in. for 30- and 15-gallon; see Appendix A-2 and show no rusting/corrosion.
			Bolted locking rings close tightly; not loose on drum lid.
5	Drum lids (¶2.7)		Lids are stainless steel, and show no rusting/corrosion or dents.
			55 gallon only; Single 3/4 in. Tri-Sure bung fitting (stainless).
6.	Gaskets in lids (¶2.8)		Gaskets are securely glued into the drum lids.
7	Markings (¶5.0)		Drums marked (as a minimum) with specified UN markings, per Purchase Order Description.
			Drums legibly marked (embossed) on bottom in accordance with required 49 CFR markings, and specified gross test weight.
			Markings include the manufacturer's identification -- name or registered symbol (initials or M-number), or test agency code; after USA/. Ref: 49 CFR, ¶178.503(a)(8).
8	Side Markings (¶5.0)		The required UN markings (including the specified dual UN marks) are durably and legibly marked on the side.

Package ID Number_____

P. O. Number_____

Total Units Received_____

Inspection Method: Per Company's QA Plan

Sample Size_____[Based on ANSI/ASQC Z1.4-1993]

Non-Conformance Document No._____

Inspector/Date_____

Additional comments on back: _____check, if yes.

The above QC inspection check list shall be accomplished for each order based on random samples of incoming stainless steel drums, by QC personnel to determine manufacturer's conformance to these specified Packaging Specifications.

Shipments of stainless steel drums not meeting specified requirements will be returned to the seller for credit.

QC inspections resulting in noncompliance with the Packaging Specifications is cause for rejection of the entire shipment.

Open Head Stainless Drum

Specification No. 1A2-102-00

Issued: February 1, 2000

Revised:

Page 5 of 7

5.0 INTENDED USE

As a minimum, each drum shall be marked in accordance with 49 CFR, §§178.2, 178.3, and 178.503 in a conspicuous location on exterior surface of the drum. Markings shall have a minimum letter height of 1/2 inch. Markings must include the manufacturer's identification -- company name or registered symbol (initials or M-number), or test agency code, per 49 CFR, §178.503(a)(8).

Additionally, drums are to be marked with the UN markings including the specified dual markings, as stipulated in §1.1. of this specification.

The letters: CATN--(dash) plus the last four (4) numbers of the package ID number must be marked below the UN markings:

55 gallon	=	CATN—6085
30 gallon	=	CATN—6050
15 gallon	=	CATN—6217

6.0 INTENDED USE

Containers are intended for Packing Group I, II, and III hazardous materials in solid or liquid form. Maximum fill capacity of the drum shall not exceed the tested gross weight or density marked on the drum.

7.0 SUGGESTED MANUFACTURERS

The following list of suggested manufacturers have demonstrated ability to comply to the requirements set forth in this document. However, this list does not guarantee current or continued availability as a suggested manufacturer source:

[Enter Suggested Manufacturer\(s\) Here:](#)

The Seller must advise the Company prior to any change in the current source (manufacturer) of packaging materials described in these Packaging Specifications.

Any Manufacturer that satisfactorily demonstrates to the Company the capability to furnish packaging in compliance with these Packaging Specifications, may be added to the above listing.

8.0 AUTHORIZED CHANGES

Changes/revisions in the requirements specified in this document will only be authorized by the Company.

Open Head Stainless Drum

Specification No. 1A2-102-00

Issued: February 1, 2000

Revised:

Page 6 of 7

9.0 DISTRIBUTION OF UN PERFORMANCE TEST REPORTS (per ¶3.1) and CLOSURE INSTRUCTIONS (per ¶2.9)

A) Closure instructions must be furnished for each initial order, and annually (at the minimum) for each type/size package purchased by the Company to the address below.

B) Upon specific request, UN performance test documentation for each specified order/shipment will be submitted directly to the Company at the address below.

COMPANY NAME AND ADDRESS (enter information below)

SPECIFIC REQUIREMENTS for UN PACKAGING SPECIFICATIONS	<u>APPENDIX A-2</u>	Issued/Revised: February 1, 2000
--	----------------------------	---

STAINLESS STEEL DRUM CONSTRUCTION VARIATIONS

	OPEN HEAD (OH) DRUMS [Fully Removable Heads]			TIGHT HEAD DRUMS		
	<i>No. 1A2-102-00</i>			<i>No. 1A1-103-00</i>		
Construction	55 gallon	30 gallon	15/16 gallon	55 gallon	30 gallon	16 gallon
Nominal, mm	1.5189	1.2141	0.9119	1.2141	1.2141	0.9119
** Steel Thickness	.0598 in.	.0478 in	.0359 in.	.0478 in.	.0478 in.	.0359 in.
Minimum, mm						
Drum gauge	1.3538	1.0871	0.8230	1.0871	1.0871	0.8230
	.0533 in.	.0428 in.	.0324 in	.0428 in.	.0428 in.	.0324 in
	16 ga.	18 ga.	20 ga.	18 ga.	18 ga.	20 ga.
Head Thickness	1.5189	1.2141	0.9119	1.2141	1.2141	0.9119
Same Tolerances.	16 ga.	18 ga.	20 ga.	18 ga.	18 ga.	20 ga.
Rolling Hoops	3 each	2 each	2 each	2 each	2 each	2 each
Locking Ring –mm	2.6568	2.6568	1.5189			
Nominal.	12 ga.	12 ga.	16 ga.	----	----	----
Bolt Size						
*see note below	5/8 inch	5/8 inch	3/8 inch	----	----	----
Gaskets	Required	Required	Required	----	----	----
Bung Openings	3/4 inch Tri-Sure (1)	No	No	2 & 3/4 inch	2 & 3/4 inch	2 inch

*NOTE: Counterfeit bolts, as stipulated on current DOE listing, will not be accepted. Bolts are of foreign origin.

**NOTE: Steel thickness dimensions/minimum tolerances, in millimeters, are converted from the DOT Gauge Table, CFR 49, ¶173.24, pre-HM-181 docket. [inches x 25.4000 = millimeters; current CFR 49, ¶171.10(c)(2)]

· NOTE: Minimum gauge thickness tolerances, as shown above, apply (block 1).